

## **WARNING**

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# Charles Darwin University

## Final Examination

Family Name						
Given Name/s						
Student Number						
Teaching Period	Semester 2, 2018					

ACT502 – Management Accounting	DURATION	
	Reading Time:	10 minutes
	Writing Time:	180 minutes
INSTRUCTIONS TO CANDIDATES		
<p align="center"><b>Complete requirements for both Parts A and B</b>  <b>Show your calculations clearly.</b></p>		
EXAM CONDITIONS		
<p><u>You may begin writing from the commencement of the examination session.</u> The reading time indicated above is provided as a guide only.</p>		
This is a RESTRICTED OPEN BOOK examination		
Any non-programmable calculator is permitted		
No handwritten notes are permitted		
Any hard copy, unannotated English dictionary is permitted		
ADDITIONAL AUTHORISED MATERIALS	EXAMINATION MATERIALS TO BE SUPPLIED	
No additional printed material is permitted	1 x 16 Page Book 1 x 4-Multiple Choice Answer Sheet 1 x Scrap Paper	

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**Section B**  
**Practical Questions**

**Total No of Marks for this section: 61**

This section should be answered in the Answer Booklet provided.

There are **5 questions** and the marks are shown for each of these.

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**Q. 1 (Marks = 21)**

Decorative Doors Ltd produces two types of door, interior and exterior. The company's costing system has two direct-cost categories (materials and labour) and one indirect-cost pool. The costing system allocates indirect costs on the basis of machine-hours. Recently, the owners of Decorative Doors have been concerned about a decline in the market share for their interior doors, usually their biggest seller. Information related to Decorative Doors production for the most recent year follows:

	<b>Interior</b>	<b>Exterior</b>
Units sold/produced	3200	1800
Selling price	\$125	\$200
Direct material cost per unit	\$30	\$45
Direct production labour cost per hour	\$16	\$16
Direct production labour-hours per unit	1.50	2.25
Production runs	40	85
Material moves	72	168
Machine set-ups	45	155
Machine-hours	5500	4500
Number of inspections	250	150

The owners have heard of other companies in the industry that are now using an ABC system and are curious how an ABC system would affect their product-costing decisions. After analysing the indirect-cost pool for Decorative Doors, the owners identify six activities as generating indirect costs: production scheduling, material handling, machine set-up, assembly, inspection and marketing. Decorative Doors collected the following data related to the indirect-cost activities:

<b>Activity</b>	<b>Activity cost</b>	<b>Activity-cost driver</b>
Production scheduling	\$180 000	Production runs
Material handling	\$45 000	Material moves
Machine set-up	\$25 000	Machine set-ups
Assembly	\$60 000	Machine-hours
Inspection	\$8 000	Number of inspections

Marketing costs were determined to be 3% of the sales revenue for each type of door.

**Required**

- a. Calculate the cost of an interior door and an exterior door under the existing costing system. (4 marks)
- b. Calculate the cost of an interior door and an exterior door under an activity-based costing system. (12 marks)
- c. Compare the costs of the doors in requirements 1 and 2. Why do the two costing systems differ in the cost of an interior and exterior door? (2.5 marks)
- d. How might Decorative Doors use the new cost information from its activity-based costing system to address the declining market share for interior doors? (2.5 marks)

**Q. 2 (Marks= 12)**

Four Seasons Company makes snow blowers. Materials are added at the beginning of the process and conversion costs are uniformly incurred. At the beginning of September, work-in-process is 40% complete and at the end of the month it is 60% complete. Other data for the month include:

Beginning work-in-process inventory	1600 units
Units started	2000 units
Units placed in finished goods	3200 units
Manufacturing OH Costs	\$80 000
Cost of direct labour	\$120,000
Cost of direct materials	\$260 000
Beginning work-in-process costs:	
Materials	\$154 000
Conversion	\$82 080

**Required:**

- a. Complete the attached Production Cost Report on page 13 for the month of September using the above information. Calculations rounded to two (2) decimal places. (10 marks)
- b. Prepare journal entries to record transferring of materials to processing and from processing to finished goods. (2 marks)

**Q 3 (Marks = 10)**

Garner Company makes a perfume called Frangi. The standard cost for one bottle of Frangi is as follows:

Manufacturing Cost Elements	Standard		
	Quantity	Price	Cost
Direct materials	6 oz	\$0.90	\$5.40
Direct Labour	0.5 hrs	\$12.00	\$6.00
Manufacturing Overheads	0.5 hrs	\$4.80	\$2.40
<b>Standard Cost per unit</b>			<b>\$13.80</b>

During the month, the following transactions occurred in manufacturing 10,000 bottles of Frangi.

1. 58,000 ounces of materials were purchased at \$1.00 per ounce.
2. All the materials purchased were used to produce the 10,000 bottles of Frangi
3. 4,900 direct labour hours were worked at a total labour cost of \$56,350
4. Variable manufacturing overhead incurred was \$15,000 and fixed manufacturing overhead incurred was \$10,400

The manufacturing overhead rate of \$4.80 is based on normal capacity of 5,200 direct labour hours. The total budget at this capacity is \$10,400 fixed and \$14,560 variable.

**Required**

- a) Compute the total variances for direct materials & direct labour as well as for its elements. (8 Marks)
- b) Compute the total variance for manufacturing overheads. (2 Marks)

Note: Please indicate whether the variances are favourable (F) or unfavourable (U).

**Q 4 (Marks = 9)**

XYZ Company must decide whether to make or buy some of its components. The cost of producing 60,000 switches for its generators are as follows:

Direct Materials	\$30,000	Variable Overheads	\$45,000
Direct labour	\$42,000	Fixed overheads	\$60,000

Instead of making the switches at these costs, the company has an opportunity to buy the switches at \$2.70 per unit. If the company purchases the switches, all of the variable costs & one-fourth of the fixed costs will be eliminated.

**Required:**

- a) Prepare an incremental analysis showing whether the company should make or buy the switches. (6 marks)
- b) Would your answer be different if the released productive capacity will generate additional income of \$34,000? (3 marks)

**Q.5 (Marks: 9)**

Snow Cap Springs produces and sells water filtration systems for home owners. Information regarding its three models is shown below.

	<b>Basic</b>	<b>Basic Plus</b>	<b>Premium</b>
Units sold	750	450	300
Selling price	\$250	\$400	\$800
Variable Costs	\$195	\$285	\$415

The company's total fixed costs to produce the filtration systems are \$180,700.  
The company is subject to 30% corporate tax.

**Required:**

What is the number of units of each model that the company must produce to:

- a) break even (5 marks)
- b) to earn an after-tax profit of \$35,028. (4 marks)

<b>Family Name</b>				
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<b>Teaching Period</b>	<b>Semester 2, 2018</b>			
<b>Four Seasons Company</b>				
<b>Production Cost Report</b>				
<b>For the month of September</b>				
<b>Quantities</b>	Physical Units			
Work in process, Sept 1				
Started into production				
Total Units				
		Equivalent Units		
Units Accounted for		Materials	Conversion Costs	
Transferred Out				
Work in process, Sept 30				
Total /Equivalent Units				
<b>Costs:</b>				
		Materials	Conversion Costs	Total
Work in process, Sept 1				
Costs incurred in Sept				
<b>Total Costs</b>				
Total /Equivalent Units				
Unit Costs				
<b>Costs to be accounted for</b>				
Transferred Out				
Work in process, Sept 30				
<b>Total Costs</b>				